

A sterilizer includes an anti-microbial material having a base ingredient impregnated with a volatile anti-microbial agent, an air-permeable capsule encapsulating the anti-microbial material, and a container accommodating the capsule and having ventilation apertures provided on a surface thereof for accommodating the capsule. The sterilizer also has a peelable film provided above the container to seal the ventilation apertures. When the film is removed from the container, a vapor of the anti-microbial agent emitted from the anti-microbial material in the capsule can flow through the ventilation apertures on the container and flow into the external atmosphere. That improves the effects of sterilizing the surface of food as well as the air and of preserving the nutrient of food in, for example, a refrigerator.